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ABSTRACT

This document describes a case study of seven community colleges that used curriculum and pedagogy to integrate academic and occupational education. Integration is accomplished by linking or clustering courses, infusing academic instruction into occupational education or vice versa, or adding components such as authentic assessment, career exploration, and work-based learning to traditional career-related education. An unanticipated finding was that only a small number of community colleges (at least in the four states targeted) actually offered courses that integrated academic and occupational curriculum. Benefits of integrated instruction included: (1) increased student motivation; (2) a greater sense of mutual support and community through linked courses; (3) interactions with different faculty offset the problem of increased faculty workload; (4) faculty improved their teaching skills and their awareness of other disciplines; and (5) integrated instruction may stimulate an updating of curriculum and help local employers to form relationships with the college. Obstacles included: (1) faculty resistance to change, or to academic-occupational integration in particular; (2) increased faculty workload; (3) a perception that integrated instruction reduced educational quality; (4) conflict in the standards or perceptions of faculty members in linked-course models; (5) questionable transferability of integrated courses. (PGS)

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CCRC BRIEF

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Curriculum and Pedagogy to Integrate Occupational and Academic Instruction in the Community College: Implications for Faculty Development

Dolores Perin

Students in community college programs designed expressly for career training are often academically under-prepared. Yet traditional academic courses may be ineffective for them because the content tends to be general rather than focused on career topics. The separation of academic and career-related content minimizes the likelihood of generalization of learning across the two contexts, so that, for example, writing skills developed in freshman composition class may not be applied in an allied health class. Further, given their educational histories and learning styles, students whose main objective is to prepare for a career may not see the value of general education (Grubb, Badway, Bell, & Kraskouskas, 1996) and may avoid taking academic courses altogether.

A way around these problems is to integrate occupational and academic education. (By occupational education we mean associates and certificate programs leading to career entry or advancement.) Emanating from Dewey's (1916) philosophy, integrated instruction makes academic courses more occupational and occupational education more academic. Academic-occupational integration is the fusion of reading, writing, English language, math, and/or critical thinking skills with career-related instruction. Integration is accomplished by linking or clustering courses, infusing academic instruction into occupational courses or vice versa, or adding components such as authentic assessment, career exploration, and work-based learning to traditional career-related education (Badway & Grubb, 1997). For the community college, integrated instruction promises both curricular and pedagogical reform. Curricular reform is possible through the synthesis of two normally disparate areas, and pedagogical reform occurs when teacher-centered instruction is replaced with more stimulating student-centered teaching.

This Brief is drawn from a case study of seven community colleges that used curriculum and pedagogy to integrate academic and occupational education. The colleges were in urban, suburban, and rural areas in four states, two in the Northeast and two in the Midwest. The sites were selected based on the following criteria: (1) the institution was offering one or more integrated occupational courses; (2) the college considered the course(s) to be good examples of integration; (3) and the course(s) exemplified one of the curriculum integration models identified by Badway and Grubb (1997) or the Illinois Task Force on Integration (1997). Neither the colleges nor the states in which they are located constitute a representative sample.

A total of 33 classes participated, of which 25 were observed. In addition, students in 23 classrooms completed an anonymous survey, and 137 individuals were interviewed, including 77 students, 40 instructors and chairs, 13 administrators, and 7 other personnel.

Findings

Curriculum Integration

The study found implementations of five models of occupational-academic integration. It is important to note that the colleges did not necessarily use the term "integration" to describe their efforts. Attempting to broaden their curriculum in various ways, they linked or clustered courses, created learning communities, or infused occupational courses with academic material. The learning community and course-linking models permitted connections between courses at different levels, such as introductory nursing with a higher-level philosophy course and intermediate ESL with introductory business.

An unanticipated but important finding of this study was the difficulty in finding cases: at least in the four states targeted, only a small number of community colleges actually offered courses that integrate the academic and occupational curriculum. Although we observed many vibrant cases of integration, less than three-fourths (68%) of the classes offered by the colleges as examples were actually integrated in terms of discernible classroom practice. Moreover, most of the efforts were confined to general education courses, with serious under-representation of occupational education.

Integration was often identified with applied academics courses, and these were not considered to be transfer-level. A consultant to the integration network in one of the mid-western states indicated that most technical or applied courses were "death" for transfer. Sometimes applied academics courses were masked as traditionally titled general education courses that

were "especially appropriate for" certain career areas (Badway & Grubb, 1997, p. iv).

Instruction

Seven of the 25 classrooms used student-centered instruction, five used teacher-centered instruction, and 13 were mixed. Although previous research suggested that integrated instruction tends to be student-centered, we saw strongly integrated instruction in both traditional lecture and student-centered formats. However, while we saw some examples of strong integration in the student-centered classrooms we visited, on the whole, classrooms of this type tended to be weakly integrated. One example of strong integration was found in a traditional lecture format. Interestingly, the students found this teacher to be "bland" and "boring," preferring the composition teacher, who used a mixed style.

Benefits of Integrated Instruction

Despite the substantial costs in terms of administrative attention and faculty workload, many thought that the effort was validated by gains in student motivation, performance, and retention.

Benefits to students. Students who typically shun general education voluntarily swallow a larger dose of academic instruction when it is linked to career education. Previously hard-to-motivate students were happier to engage in academic tasks than before. Integration in the form of linked courses gave students a sense of community: they cooperated with each other and supported each other's learning.

Benefits to faculty and the quality of education. Faculty motivation increased as integration paved the way for intellectual and personal communication. The opportunity to collaborate with other instructors was described as "exciting" by faculty at two of the colleges. Some stated that the opportunity to interact with other instructors offset the problem of increased workload. Another benefit of integrated instruction was an improvement in faculty's teaching skills and awareness of other disciplines. Faculty in both general education and career-related programs expanded their horizons beyond their own disciplines.

Integrated instruction can be motivating to highly educated instructors who are teaching poorly prepared students. However, not all faculty were motivated by integrated instruction, and collaborations might not always be effective. We were told at one community college that instructors might not be interested in the content of another course but still have to teach it. This issue may particularly affect occupational instructors who are not interested in teaching academic skills.

Benefits to colleges. Academic-occupational integration may lead to curricular modification as colleges develop relationships with industry and become known as state leaders. A senior administrator at one community college thought that integrated instruction was valuable to the college because it had stimulated an updating of curriculum. Another administrator reported that local employers were forming relationships with the college under the aegis of integrated instruction.

Obstacles

When considered alongside the benefits described above, obstacles can be treated as the costs of integrated instruction. We classified obstacles into four categories: (1) issues that arise in initiating any new approach; (2) dependence on a campus leader; (3) problems in integrating instruction; and (4) problems specific to academic-occupational integration.

Initiating a new approach. Some faculty were unwilling to try a new approach to instruction, either because of lack of interest or because it might hurt their chances for tenure or promotion. Sometimes instructors were chosen for a new initiative simply because they volunteered. It was expensive for colleges to pay for the released time and incentives necessary to initiate and maintain integrated instruction. At one college, the writing-intensive model seemed to be losing its impetus because faculty workshops and released time for coordinators had been discontinued.

Importance of a faculty leader. In most cases, the initiation and maintenance of integrated instruction seemed to depend on individual leadership. At one community college, for example, the program's longevity was attributed to the attention given to it by the vice president. At another school, a senior administrator mandated the linking of ESL and content courses after a successful three-year pilot led by two English instructors. His endorsement and support were critical, because he had the authority to make funds available for faculty to attend regular full-day staff development meetings. In one community college, the director of the certificate program spent considerable time building faculty relationships and communicating with senior administrators about the program. In contrast, no one in particular was at the helm of one college's writing-across-the-curriculum effort at the time of the study, and possibly as a consequence, it seemed to be losing power.

New efforts can be overly dependent on a single leader; if that leader is removed for some reason, and if the program is not sufficiently institutionalized, it can weaken. At one community college the person who initiated the Integration Center and was its central source of energy was about to move to a higher-level position in the college. It was not clear that the center was sufficiently institutionalized in the college's operations to be able to withstand his departure, especially since its nominal director was assigned only part-time and had many other responsibilities.

Integrating instruction. Obstacles to integrating instruction included faculty workload, curriculum coverage, and in cases of aligned courses, creating effective faculty collaboration. Increase in faculty workload was by far the most often mentioned drawback. Instructors who seemed highly committed to teaching were willing to spend additional time preparing

for instruction, but the move to integrate instruction may not be feasible for marginally committed faculty such as adjuncts.

Less of the curriculum may be covered, either because additional topics and skills are being taught or because there is an increase in time-consuming group work. Further, interviewees indicated that integrated instruction was perceived by critics as reducing educational quality because it was applied.

While faculty collaboration was a great success in most cases, problems can arise. For example, difficulties may arise in linked-course models because instructors have different perceptions of the same students, which may emanate from the different disciplinary backgrounds.

Further, different instructors may have different standards for the same work. For example, at one school, students began by writing papers that they handed in to both nursing and English instructors, with the English instructor grading them for style and mechanics and the nursing teacher for content. Because students were becoming confused by differing evaluations of the quality of their work, the instructors began to assign different work.

Academic-occupational integration. Despite near universal enthusiasm for academic-occupational integration among faculty and administrators who actually implement it, a major obstacle to its expansion is faculty resistance. Some occupational faculty did not wish to teach academic skills; some academic faculty felt that the integrity or standards of their courses were threatened. A related obstacle concerned the transferability of integrated courses. At one college, many students in a program of integrated courses had difficulty completing the prerequisites for a required transfer-level math course, but the program head appeared to be unwilling to change the requirements or course content. To do so, he felt would be to lower standards. Several faculty members from the English and math areas at the same campus expressed doubts about being able to integrate academic courses to transfer level.

Professional Development

Professional development was a key factor in implementing academic-occupational integration, and the seven colleges used several different approaches. Four of them had intensive staff development over a long period of time. One did not have formal staff development, but the director of the program was a strong leader and the small number of staff members had a close relationship, which ensured ongoing communication about instruction. One school relied on mentoring through a statewide integration network. And, staff development at another school could be described as a self-directed learning process, as the instructor, a highly experienced, dedicated teacher who was also the chair of English, initiated integrated instruction on his own.

Where formal staff development was provided, the approach seemed to reflect the culture and history of the different institutions. Possibly the most important function of professional development was to reduce faculty resistance. Models of professional development that permitted close contact between academic and occupational faculty seemed to create favorable feelings about integrated instruction in general and the specific implementation in particular. On the other hand, off-site staff development did not seem effective in reducing the resistance to collaboration. The opportunity for faculty to play an active role in training seemed to enhance the effectiveness of professional development.

A common feature of staff development at the four schools that provided training was the length of time involved and the painstaking care with which curriculum was integrated. Faculty met regularly, sometimes weekly. In all these cases, faculty or administrators who had initiated the integrated instruction were directly involved in professional development, guiding discussions, providing theoretical background and practical suggestions, and facilitating collaboration between faculty in academic and career-related programs. At one college, while writing-across-the-curriculum was being implemented, faculty from the English department were given released time to introduce other faculty to the concept. Released time also allowed for regular meetings and the creation of a faculty manual.

Discussion and Conclusions

Difficulty of Finding Cases

Integrated instruction seems to be increasing on community college campuses, but we found career-related education to be seriously underrepresented in these efforts. Lack of communication across disciplines partly explains this situation. Occupational faculty may see general education faculty as unsympathetic to occupational students and out of touch with the career interests and experiences of these students. At the same time, academic faculty are prepared by their own educational experiences to teach more traditional liberal arts and social science subjects, and some see integration of occupational themes and application of basic skills as a lowering of standards. However, almost half the classrooms participating in this study were infused occupational courses that maintained transferability, contrasting with the common view of integrated instruction as (low-level) applied academics.

Overlap of Academic-Occupational Integration and Remediation

College faculty and administrators expressed a wide range of reasons for integrating instruction at their institutions, from theoretical to pragmatic. By far the most frequently mentioned reason was its impact on student performance—in particular, students' need for literacy and critical thinking skills. Given this emphasis,

we ask whether academic-occupational education is remedial intervention in disguise.

The majority of classes included, along with development of knowledge and skills needed for the workplace, the improvement of reading, writing, listening, speaking, learning, and thinking skills. Some integrated classes taught literacy skills at a higher level than would be found in remedial classes, but in others the levels seemed similar. Research comparing practices and outcomes for integrated versus remedial instruction would be valuable, given the current crisis in remedial instruction (McGrath & Spear, 1991; Dougherty, 1994).

Explaining Positive Effects

Despite many favorable comments, there was little quantitative evidence for the benefits of integrated instruction. An exception was a community college where data had been collected in previous years on retention, grades, and the skipping of ESL levels, although lack of comparison groups limits the ability to draw conclusions. In addition, since this course was in its first semester at the time of the study, no data were available regarding academic-occupational integration per se. In this qualitative case study we can only rely on the anecdotal evidence provided.

Programs that integrated instruction were also engaged in other practices that can exist independent of integrated instruction—smaller class size, less reliance on lectures, more writing, supplementary educational software or tutoring, weekly counseling groups, peer mentoring, and faculty released time. Holding classes at the work site, as was done at one school, may have enhanced both student and teacher motivation. A strong labor market or effective job counseling that virtually ensures job placement on program completion further enhances motivation. Faculty recognition and released time at several sites may have intensified the value of integrated instruction. In some cases, the teachers who integrated instruction were campus leaders who had also been involved in other innovative efforts. They appeared to be excellent teachers who could successfully adopt a variety of pedagogical strategies, of which integration was only one.

Further research would be needed to establish which of these variables, separately or in combination, are responsible for the putative benefits of academic-occupational integration. While it would be difficult to disentangle separate effects, it appears that integration, as with other educational innovations, facilitates best practice.

Implications for Faculty Development

The success of academic-occupational integration seems to depend greatly on the quality of faculty development. Motivated instructors are usually willing to tolerate an increase in workload if in return they experience increased intellectual satisfaction and enhanced professional relationships in the college. Many of the pitfalls and pressure points, such as difficulties in scheduling time for collaboration or misunderstandings across disciplines, can be detected by a professional development leader and addressed in the collegial setting of a faculty meeting. Further, a far-reaching faculty development effort can reduce over-dependence on a single leader.

Faculty development planners need to be sensitive to differing approaches to students' basic skills needs. Understandably, most faculty in career-related programs do not see it as their responsibility to teach literacy skills. Objectives of integrated courses need to be negotiated among faculty. Agreement on the reasons for integration will be important if professional development and instructional practice are to be effective. The analysis of teaching practices, as well as a compendium of the benefits and drawbacks of integrated instruction, would provide the basis of an agenda for professional development. The way in which the training is provided will reflect the interests and strengths of the individual institutions that decide to integrate instruction.✣

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